

Predictors of Aggressiveness in Schizophrenic Patients Treated in Inpatient Forensic Institutions

Klementina Ružić¹, Tanja Frančišković², Zoran Šuković², Tija Žarković-Palijan³, Nadica Buzina⁴, Ika Rončević-Gržeta¹ and Duška Petranović⁵

¹ Psychiatric Clinic, University Hospital »Rijeka«, Rijeka, Croatia

² Department of Psychiatry and Psychological Medicine, School of Medicine, University of Rijeka, Rijeka, Croatia

³ Department of Forensic Psychiatry, »Dr. Ivan Barbot« Neuropsychiatric Hospital, Popovača, Croatia

⁴ Psychiatric Hospital »Vrapče«, Zagreb, Croatia

⁵ Internal Medicine Clinic, University Hospital »Rijeka«, Rijeka, Croatia

ABSTRACT

Aggressiveness is a frequent and problematic aspect of the treatment of forensic patients. This study examines the correlation of aggressiveness and its subtypes with quality of life enjoyment and satisfaction, personality dimensions and family functioning. The research is conducted on 99 psychiatric patients diagnosed with schizophrenia or psychotic disorder similar to schizophrenia (F 20 – F 29) in two forensic psychiatry institutions. The patients committed criminal offence in state of insanity. These offences had signs of aggressive acts and the patients were therefore admitted to inpatient psychiatric forensic institutions. The research was conducted by using the Aggressiveness Questionnaire (AG-87), the Eysenck Personality Questionnaire, the Quality of Life Enjoyment and Satisfaction Questionnaire and the Family Functioning Scale. The results show that aggressiveness has a negative correlation with the quality of life enjoyment and satisfaction. Regression analyses indicate that bad family relations and psychoticism are significant predictors of aggressiveness and its subtypes. We can conclude that forensic patients who committed aggressive offence in psychotic state, who at the same time score higher values on psychoticism scale and report negative family relations, are more likely to express aggressiveness also during their stay in forensic psychiatric hospital.

Key words: forensic patients, schizophrenia, aggressiveness, psychoticism, family relations

Introduction

In general, aggressiveness is a more or less expressed, relatively stable tendency of an individual to attack, threaten or get into a conflict or a fight in certain (provoking) situations¹.

As there is a wide divergence of aggressiveness theories, some authors hold that aggressiveness is not a single phenomenon. For instance, Feshbach introduces the distinction between expressive and instrumental aggressiveness², Fromm makes the distinction between benign and malignant aggressiveness³, Skinner introduces the concepts of phylogenetic and ontogenetic aggressiveness⁴, while Žužul holds that aggressiveness as a personality trait can be expressed in two ways – as a latent tendency to attack the source of provocation and as a manifest aggressive behaviour¹.

Many studies indicate that the risk of aggressive behaviour is elevated in persons suffering from schizophrenia^{5–7}. Clinical impression reveals that violence in people suffering from schizophrenia is associated with positive symptoms of schizophrenia and disorganisation of thought^{8,9}. Although opinions regarding the relation between mental illness and criminal behaviour differ, many authors agree on the fact that patients who belong to certain diagnostic categories are more prone to aggressive acts^{10,11}. In cases of schizophrenia, the inability to regulate various negative emotions, such as anger, hostility and irritability, along with loss of impulse control¹, may lead to aggressiveness and violence⁹. Other findings show that criminal offences committed by schizophrenic persons are more frequent when the illness is combined

with personality disorder and/or substance abuse. Otherwise, crime rate is approximately the same as in general population¹².

Measures of protection and treatment of schizophrenic patients who committed aggressive acts include the observation of their behaviour within the institution and prediction of chances of patients repeating the aggressive act. Identification of relevant factors associated with aggressiveness can help in prevention and treatment of aggressive behaviour.

In order to understand the correlation between schizophrenia and criminal behaviour, it is not enough only to concentrate on the correlation between mental illness and criminal act. Factors such as personality traits, family functioning and quality of life also have to be considered. We assumed that negative family functioning, psychoticism level and lower quality of life might serve as predictors of aggressive behaviour also during their stay in forensic psychiatric hospital.

The objective of this study was to determine whether the patients who were treated in inpatient forensic institutions after committing criminal offence, who at the same time revealed higher values on psychoticism scale, had a lower quality of life and reported negative family functioning, were more aggressive also during their stay in forensic psychiatric hospital.

Patients and Methods

The research was conducted in two forensic psychiatric institutions (Popovača and Vrapče, Croatia). The inclusion criterion was that psychiatric patients committed the crime of murder or attempted murder in state of insanity, after which they were admitted to forensic psychiatric institution. At the time of research, psychiatric hospital in Popovaca had 210 forensic patients, while hospital in Vrapce had 70 patients. The exclusion criterion was co morbidity, i.e., the research did not include personality disorder patients and patients who have a history of substance abuse. Using the criteria we selected 99 patients (47 from Popovača, 60 from Vrapče) with schizophrenia or psychotic disorder similar to schizophrenia (F 20–F 29). All selected patients agreed to participate in the research. Both sexes were included in unequal proportions. The respondents were aged 23 to 76, with a mean age of 47.3 years ($M = 47.37$ years, $\sigma = 13.2$). All the respondents volunteered the research and gave written informed consent.

We obtained demographic data, diagnosis, criminal offence information, level of insanity at the time of criminal act and information on earlier and current hospitalisation (safety measures) from each patient's case history.

Questionnaires were used in further procedure.

Aggressiveness was examined through the Aggressiveness Questionnaire (AG-87)¹³. The questionnaire is based on Žužul's research of aggressiveness and it specifies a level of latent aggressiveness, a level of manifest aggressiveness and the extent of difference between them.

The questionnaire contains 5 subscales: verbal manifest aggressiveness (VM), physical manifest aggressiveness (PM), indirect aggressiveness (IN), verbal latent aggressiveness (VL) and physical latent aggressiveness (PL). Respondents rate themselves on the five-point scale in terms of how often they would behave in a described manner in particular situations. Minimum possible score on one subscale is 15 and maximum is 75.

Personality dimensions were tested by Eysenck Personality Questionnaire (EPQ)^{14,15}. The EPQ consists of 90 units that form 4 scales; Extraversion (E-scale), Neuroticism (N-scale), Psychoticism (P-scale) and the Lie scale (L-scale). Respondents rate themselves by choosing YES or NO answers. The level of each personality dimension and the level of conformism (giving socially desirable answers) are obtained by adding up typical answers according to the key from the EPQ reference book. Higher scores signify a higher level of particular personality dimension.

Quality of life was tested by the Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q)¹⁶ which consists of 4 subscales that measure satisfaction and enjoyment in spare time (results range from 6 to 30), general activities (18–80), physical health (19–65) and emotions (20–70). Respondents rate themselves 1 to 5 (1 = never; 2 = seldom; 3 = sometimes; 4 = often; 5 = very often). Higher results point to a higher level of life enjoyment and satisfaction.

Family relations were tested through the Family Functioning Scale¹⁷. The questionnaire consists of two subscales: positive and negative family relations. Respondents rate themselves 0 to 4 in both subscales (0 = does not apply to my family at all, 1 = mostly does not apply to my family..., 2 = I do not know, 3 = mostly applies to my family, and 4 = completely applies to my family). The scale of positive family relations consists of 36 statements. Minimum possible result is 0, and maximum is 144. The scale of negative family relations consists of 39 statements. The minimum possible result is 0, and maximum is 156.

Statistical analysis was carried out using the SPSS, version 11. Descriptive statistic parameters (arithmetic mean and standard deviation) and result distribution were calculated first, for all the variables. Internal consistency reliability coefficient (Cronbach alpha) was also calculated for all questionnaires used in the research. The correlation between variables was examined using the Pearson Correlation Coefficient. The likelihood of result prediction based on dependent variables using independent variables was tested through gradient regression analyses.

Results

Descriptive analysis gave satisfactory Cronbach alpha reliability coefficients for all scales applied in the research. The level of reliability of psychoticism dimension (Cronbach alpha=0.670) is somewhat lower in the EPQ, but that is the result obtained in most of the research to

date, and confirms past findings on instability of psychoticism factor (Table 1).

Correlation analysis shows that all the correlations of 4 types of aggressiveness measured by the Aggressiveness Questionnaire AG-87 (VM, PM, IN, VL i PL) are statistically significant, high and positive (from $r=0.546$ to $r=0.905$). The results obtained through the Aggressiveness Questionnaire reveal forensic patients as moderately aggressive in relation to potential range of results.

Correlations and the levels of significance of the 4 subscales of Eysenck Personality Questionnaire reveal a statistically significant positive correlation between neuroticism and psychoticism ($r=0.478$), while there is a significant negative correlation of psychoticism and neuroticism with extraversion ($r=-0.263$, $r=-0.322$). Neuroticism and psychoticism have a significant negative correlation with L-scale ($r=-0.310$, $r=-0.357$), and extraversion has a significant positive correlation with that scale ($r=0.224$). Each correlation of the Q-LES-Q subscales is statistically significant and positive (from $r=0.397$ to $r=0.661$). Correlation between the Subscale of Positive Family Relations and Subscale of Negative Family Relations in the Family Functioning Questionnaire is statistically significant and positive ($r=0.283$).

Correlation and regression analyses were performed in order to examine the correlations and likelihood of prediction based on a single variable (Table 2 and 3). Correlation coefficients of certain variables were calculated within correlation analyses.

Aggressiveness and personality dimensions

All components of aggressiveness have a significant correlation with the dimension of psychoticism. There is

a statistically significant correlation between physical latent aggressiveness and the dimension of neuroticism (Table 2). Six regression analyses were also calculated, where the 4 subscales of the EPQ were included as independent variables (predictors), while overall aggressiveness and its 5 components were included as dependent variables (criteria). Psychoticism is a significant predictor of overall aggressiveness and of all the subscales except verbal latent aggressiveness (Table 3).

Aggressiveness and the quality of life enjoyment and satisfaction

Table 2 shows that lower scores in the Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) signify a higher level of aggressiveness. In other words, there is a negative correlation between aggressiveness and life quality. Physical manifest aggressiveness (PM) has a significant negative correlation with all the subscales, and the overall aggressiveness (AG) has a significant negative correlation with all the Q-LES-Q subscales except the subscale of physical health. Six regression analyses were also calculated, where the 4 subscales of the Q-LES-Q were included as independent variables (predictors), while overall aggressiveness and its 5 components were included as dependent variables (criteria). Satisfaction with physical health is a significant predictor of verbal manifest aggressiveness, while emotional dissatisfaction is a significant predictor of physical manifest aggressiveness (Table 3).

Aggressiveness and family functioning

All the components of aggressiveness have a statistically positive correlation with negative family function-

TABLE 1
DESCRIPTIVE ANALYSIS OF AGGRESSIVENESS DIMENSIONS, THE LIFE ENJOYMENT AND SATISFACTION QUESTIONNAIRE (Q-LES-Q), EYSENCK PERSONALITY QUESTIONNAIRE (EPQ) AND THE FAMILY FUNCTIONING SCALE

Measures	Statistical indicators			
	Arithmetic mean	Standard deviation	Range of results	Level of Cronbach's alpha reliability
VM	31.98	12.27	15–66	0.912
PM	25.89	10.51	15–49	0.921
IN	26.61	10.34	15–50	0.911
VL	32.13	11.61	15–68	0.897
PL	25.56	10.98	15–55	0.912
AG	143.16	49.13	75–238	0.974
Spare time	19.30	5.06	6–30	0.865
General activities	53.26	12.10	18–80	0.907
Physical health	43.44	10.09	19–65	0.869
Emotions	49.39	11.26	20–70	0.911
Neuroticism	9.67	4.76	0–20	0.802
Extraversion	12.16	4.5	1–20	0.813
Psychoticism	7.22	3.61	1–18	0.670
Lying	13.17	4.4	1–21	0.800
Positive family relations	87.19	26.76	0–144	0.944
Negative family relations	69.29	25.17	0–156	0.918

TABLE 2
CORRELATION MATRIX OF AGGRESSIVENESS DIMENSIONS WITH/IN THE LIFE ENJOYMENT AND SATISFACTION
QUESTIONNAIRE (Q-LES-Q), EYSENCK PERSONALITY QUESTIONNAIRE (EPQ) AND THE FAMILY FUNCTIONING SCALE

		VM	PM	IN	VL	PL	AG
Eysenck personality dimensions	Neuroticism	0.012 p=0.909	0.157 p=0.124	0.057 p=0.582	0.141 p=0.167	0.239* p=0.018	.136 p=.186
	Extraversion	-0.018 p=0.858	0.023 p=0.823	0.038 p=0.706	-0.080 p=0.431	-0.039 p=0.700	-.019 p=.850
	Psychoticism	0.222* p=0.028	0.373** p=0.000	0.320** p=0.001	0.211* p=0.036	0.367** p=0.000	.334** p=.001
	Lying	-0.145 p=0.153	-0.052 p=0.611	-0.069 p=0.499	-0.134 p=0.185	-0.015 p=0.880	-.097 p=.341
	Spare time	-0.156 p=0.124	-0.214* p=0.034	-0.200* p=0.047	-0.205* p=0.042	-0.194 p=0.054	-.219* p=.030
Q-LES-Q	General activities	-0.164 p=0.104	-0.243* p=0.015	-0.167 p=0.098	-0.206* p=0.040	-0.217* p=0.031	-.226* p=.025
	Physical health	0.031 p=0.760	-0.210* p=0.037	-0.161 p=0.112	-0.086 p=0.399	-0.160 p=0.114	-.127 p=.210
	Emotions	-0.197 p=0.051	-0.338** p=0.001	-0.279** p=0.005	-0.169 p=0.094	-0.278** p=0.005	-.282** p=.005
Positive family functioning		.095 p=.352	-0.103 p=0.311	-0.062 p=0.545	0.021 p=0.833	-0.073 p=0.474	-0.023 p=0.825
Negative family functioning		.257* p=.010	0.270** p=0.007	0.268** p=0.007	0.232* p=0.021	0.288** p=0.004	0.298** p=0.003

* p<0.05 **p<0.01

ing, while positive family functioning do not have a significant correlation with any of the aggressiveness components (Table 2). Six regression analyses were also calculated, where the 2 components of family relations were included as independent variables (predictors), and overall aggressiveness and its 5 components were included as dependent variables (criteria). Negative family functioning is a significant predictor of overall aggressiveness and of all the subscales (Table 3).

Discussion

The results obtained through the Aggressiveness Questionnaire conducted on a sample of forensic patients correspond to the norms created by Knezović¹⁸ and associates on a sample of offenders. Schizophrenic forensic patients in our sample do not manifest a higher aggressiveness than other criminal offenders. High and positive correlations of the subscales of aggressiveness indicate that the patients who manifested a higher level of one type of aggressiveness are considerably more likely to manifest other types of aggressiveness too¹⁹.

The EPQ subscales show a significant correlation between extraversion and L-scale, while neuroticism and psychoticism have a significant negative correlation with extraversion and L-scale. In view of the fact that high level of extraversion is considered a positive indicator of

mental health and emotional balance, this research on schizophrenic patients also reveal that persons who rate high on extraversion scale are also low on scales of neuroticism and psychoticism, they are greater conformists and more adequately adjusted to their social surroundings. The level of neuroticism and the dimension of psychoticism have a significant negative correlation with the level of conformism, which means that persons rating high on psychoticism scale are also »excessively« honest, low on conformism scale and inadequately adjusted to their social surroundings. Finally, neuroticism has a significant positive correlation with psychoticism. These results were expected and correspond to previous findings on Interco relations of the EPQ subscales^{14,15}.

All the components of aggressiveness have a significant correlation with dimension of psychoticism, which is also a significant predictor of all the subtypes of aggressiveness except verbal latent. This indicates that symptoms of psychoticism have a high predictive value and correlate with aggressive behaviour. Persecutory delusions are particularly emphasized in literature^{20,21}. In states of psychoticism, the inability to control various negative emotions, such as anger, hostility and irritability, together with loss of impulse control can lead to aggressiveness and violence²². On the other hand, schizophrenic patients who do not show acute symptoms that elevate the risk of aggressive behaviour are not more aggressive

TABLE 3
THE RESULTS OF REGRESSION ANALYSES FOR THE OVERALL AGGRESSIVENESS AND ITS SUBSCALES WITH LIFE
ENJOYMENT QUALITY, EYSENCK PERSONALITY DIMENSIONS AND FAMILY FUNCTIONING AS PREDICTOR VARIABLES

Predictor variables	Criterion variables											
	VM			PM			IN			VL		
	β	sr^2		β	sr^2		β	sr^2		β	sr^2	
Eysenck personal-ity dimensions	Neuroticism	-0.140		-0.006			-0.113			0.029		-0.029
	Extraversion	0.025		0.113			0.101			-0.015		0.062
	Psychoticism	0.266	0.052*	0.458	0.156**		0.428	0.133**		0.181	0.123**	0.110**
	Lying	-0.106		0.064			0.008			-0.067		0.002
Q-les-q	R=0.273	$R^2=0.075$		R=0.426	$R^2=0.182$		R=0.379	$R^2=0.144$		R=0.235	$R^2=0.055$	R=0.364 $R^2=0.132$
	Adjusted	$R^2=0.034$		Adjusted	$R^2=0.146$		Adjusted	$R^2=0.107$		Adjusted	$R^2=0.014$	Adjusted $R^2=0.095$
	F(1.854)	p=0.125		F(5.105)	p=0.001**		F(3.870)	p=0.006**		F(1.339)	p=0.262	F(4.914) p=0.001**
												F(3.512) p=0.010**
Spare time	-0.094			-0.056			-0.091			-0.144		-0.104
	General activities	-0.109		-0.021			0.050			-0.155		-0.069
	Physical health	0.265	0.044*	-0.004			0.008			0.080		0.092
	Emotions	-0.234		-0.294	0.043*		-0.272			-0.042		-0.239
Positive family functioning	R=0.295	$R^2=0.087$		R=0.342	$R^2=0.117$		R=0.291	$R^2=0.084$		R=0.249	$R^2=0.062$	R=0.307 $R^2=0.094$
	Adjusted	$R^2=0.048$		Adjusted	$R^2=0.080$		Adjusted	$R^2=0.045$		Adjusted	$R^2=0.022$	Adjusted $R^2=0.056$
	F(2.233)	p=0.071		F(3.121)	p=0.019*		F(2.166)	p=0.079		F(1.547)	p=0.195	F(2.443) p=0.052
Negative family functioning	0.024			-0.195			-0.149			-0.048		-0.116
	0.250	0.058*		0.326	0.098**		0.310	0.088*		0.245	0.055*	0.330 0.100**
	R=0.258	$R^2=0.067$		R=0.329	$R^2=0.108$		R=0.304	$R^2=0.092$		R=0.236	$R^2=0.056$	R=0.318 $R^2=0.101$
	Adjusted	$R^2=0.047$		Adjusted	$R^2=0.090$		Adjusted	$R^2=0.073$		Adjusted	$R^2=0.036$	Adjusted $R^2=0.082$
Positive family functioning	F(3.422)	p=0.037*		F(5.821)	p=0.004**		F(4.878)	p=0.010**		F(2.834)	p=0.064	F(5.864) p=0.004**
												F(5.387) p=0.006**

* p<0.05 **p<0.01

than mentally healthy persons. Mullen claims that violence is mostly committed by less than 10 to 15 percent of schizophrenic patients¹².

In general, there is a negative correlation between all types of aggressiveness and the quality of life enjoyment and satisfaction, which corresponds to the hypothesis that patients with lower quality of life are more likely to express aggressiveness during the treatment too. This is even more important if we know that schizophrenic patients who are hospitalised for a long term normally express a higher level of aggressiveness during the treatment period, which is the case with forensic patients²³.

The patients dissatisfied with ways of spending their spare time show the highest level of aggressiveness on almost all of the subscales. We can conclude from the correlations obtained through the Quality of Life Enjoyment and Satisfaction Questionnaire that increased satisfaction with ways of spending spare time can lead to increased satisfaction in perception of other factors of life quality, which highlights the importance of occupational therapy and spare time organisation in the treatment of forensic patients.

Patients who reported positive family relations also reported negative family relations. However, significant correlations were obtained between the subscale of aggressiveness and the subscale of negative family function-

ing, which is a significant predictor of all subtypes of aggressiveness. In other words, patients who express any of the types of aggressiveness also report considerably higher levels of negative family relations. In many research, a wider social context, along with family relations, is identified as one of the mediators of the risk of aggressiveness and violence.¹² Improvement of family relations during a long term treatment might contribute to reducing the level of aggressiveness and help preparing the patients for return to society. Moreover, it might help reducing aggressiveness during the treatment in psychiatric institutions.

Conclusion

The results of this research reveal that persons with higher level of psychoticism, lower quality of life and lower family functioning are more likely to express aggressiveness also during the treatment. Psychoticism and negative family functioning are therefore the most important predictors of aggressiveness.

We can conclude from the results that successful treatment of basic illness, improvement of family functioning and organisation of spare time and occupational therapy can help reducing aggressiveness in schizophrenic forensic inpatients.

REFERENCES

1. ŽUŽUL M, Penološke teme, 1 (1986) 123. — 2. FESBACH S, Psychol Rev, 7 (1964) 257. — 3. FROMM E, Anatomija ljudske destruktivnosti (Naprijed, Zagreb, 1980). — 4. SKINNER BF, Contingencies of Reinforcement: A Theoretical Analysis (Apleton Century Crofts, New York, 1969). — 5. WALSH E, GILVARRY C, SAMELE C, HARVEY K, MANLEY C, TATTAN T, TYRER P, CREED F, MURRAY R, FAHY T, Schizophr Res, 67 (2004) 247. — 6. FOTTRELL E, Br J Psychiatry, 136 (1980) 216. — 7. PEARSON M, WILMOT E, PADIM, Br J Psychiatry, 149 (1986) 232. — 8. APPELBAUM PS, ROBBINS PC, MONAHAN J, Am J Psychiatry, 157 (2000) 566. — 9. NESTOR PG, Am J Psychiatry, 159 (2002) 1973. — 10. LINK BG, STUEVE A, Psychotic symptoms and the violent/illegal behaviour of mental patients compared to the community. In: MONAHAN J, STEADMAN H (Eds) Violence and Mental Disorder: Development in Risk Assessment (University of Chicago Press, Chicago, 1994). — 11. STOMPE T, ORTWEIN SVOBODA G, SCHANDA H, Schizophr Bull, 30 (2004) 31. — 12. MULLEN PE, Adv psychiatr treat, 12 (2006) 239. — 13. ŽUŽUL M, Konstrukcija upitnika za ispitivanje agresivnosti. MS Thesis.

- In Croat (University of Zagreb, Zagreb, 1978). — 14. EYSENCK HJ, EYSENCK SBG, Priručnik za Eysenckov upitnik ličnosti (EPQ djeca i odrasli) (Naklada Slap, Jastrebarsko, 1994). — 15. EYSENCK HJ, EYSENCK SBG, Eysenckove skale ličnosti (EPS-odrasli) (Naklada Slap, Jastrebarsko, 1994). — 16. ENDICOTT J, NEE J, HARRISON W, BLUMENTHAL R, Psychopharmacol Bull, 29 (1993) 16. — 17. KRAPIĆ N, Stilovi suočavanja sa stresom kod djece. MS Thesis. In Croat (University of Ljubljana, Ljubljana, 2000). — 18. KNEZOVIĆ Z, KULENOVIĆ A, ŠAKIĆ V, ZAREVSKI P, ŽUŽUL M, Psihološke karakteristike osuđenih osoba: Evidencija dijagnostičkih postupaka (Budućnost, Zagreb, 1989). — 19. KRESTEŠ G, ŽUŽUL M, Priručnik za primjenu Upitnika za mjerenje agresivnosti (Naklada Slap, Jastrebarsko, 1992). — 20. MULLEN PE, Crim Behav Ment Health, 6 (1996) 199. — 21. FOLEY SR, KELLY BD, CLARKE M, McTIGUE O, GERVIN M, KAMALI M, LARKIN C, O'CALLAGHAN E, BROWNE S, Schizophr Res, 72 (2005) 161. — 22. NESTOR PG, Am J Psychiatry, 159 (2002) 1973. — 23. DAFFERN M, HOWELLS K, OGLOFF J, LEE J, J Forensic Psychiatr Psychol, 16 (2005) 729.

Z. Šuković

Department of Psychiatry and Psychological Medicine, Rijeka University Hospital, Cambierieva 15, 51000 Rijeka, Croatia
e-mail: sukovic@net.hr

PREDIKTORI AGRESIVNOSTI KOD SHIZOFRENIH PACIJENATA U FORENZIČNIM USTANOVAMA ZATVORENOG TIPA

S A Ž E T A K

Agresivnost je čest i problematičan aspekt tretmana forenzično psihijatrijskih bolesnika. Ovaj rad istražuje povezanost pojavnosti agresije i njezinih podvrsta sa kvalitetom životnog užitka i zadovoljstva, dimenzijama ličnosti i obiteljskim funkcioniranjem. Istraživanje je provedeno u dvije forenzične psihijatrijske ustanove na 99 psihijatrijskih bolesnika kod kojih je dijagnosticirana shizofrenija ili psihotični poremećaj sličan shizofreniji (F 20–F 29). Kazneno djelo počinili su u stanju nebrojivosti i imalo je obilježja agresivnog čina. Zbog provođenja tretmana forenzično – psihijatrijski bolesnici nalaze se na liječenju u psihijatrijskoj ustanovi zatvorenog tipa. U istraživanju je korišten upitnik za procjenu agresivnosti (AG-87), Eysenckov upitnik ličnosti, upitnik kvalitete životnog užitka i zadovoljstva i skala obiteljskog funkcioniranja. Rezultati pokazuju da postoji negativna povezanost kvalitete životnog užitka i zadovoljstva i agresivnosti. Regresijske analize pokazuju da su negativni obiteljski odnosi i psihoticizam značajan prediktor agresivnosti i njezinih podvrsta. Možemo zaključiti da je u forenzičnih pacijenata koji su počinili agresivno djelo u psihotičnom stanju za očekivati višu agresivnost i tijekom liječenja u slučajevima lošijih obiteljskih odnosa i višeg stupnja psihoticizma.